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Welcome to STN International
                   * * * * * STN Columbus * * * * * *
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ring nodes :
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chain bonds :
7-11 \quad 8-23 \quad 9-28 \quad 10-15 \quad 12-20 \quad 13-21 \quad 14-22 \quad 16-18 \quad 17-19 \quad 24-25 \quad 28-29 \quad 28-30
ring bonds :
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15-16 16-17
exact/norm bonds :
4-7 5-10 7-8 7-11 8-9 8-23 9-10 24-25 28-29 28-30
exact bonds :
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normalized bonds :
1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 5-6 \quad 12-13 \quad 12-17 \quad 13-14 \quad 14-15 \quad 15-16 \quad 16-17
isolated ring systems :
containing 1 : 12 :
Match level:
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11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:Atom 28:CLASS
29:CLASS 30:CLASS
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L5 2 L4 AND PD< SEPT 2003

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L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2010 ACS on STN
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AN 2003:656749 CAPLUS Full-text

DN 139:197386

- TI Preparation of isoquinolinone derivatives as JNK inhibitors
- IN Itoh, Fumio; Kimura, Hiroyuki; Igata, Hideki; Kawamoto, Tomohiro; Sasaki, Mitsuru; Kitamura, Shuji
- PA Takeda Chemical Industries, Ltd., Japan
- SO PCT Int. Appl., 369 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

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PATENT NO.
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    US 20050148624
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    WO 2003-JP1429
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 139:197386

AB Claimed are JNK (c-Jun N-terminal kinase) inhibitors containing isoquinolinones or salts thereof. The second claim specifies that said isoquinolinones are 1-isoquinolinones. Compds. of this invention in vitro showed IC50 values of 0.0067 μM to 0.095 μM against JNK1. Formulations are given.

IT 583833-69-6P 583833-70-9P 583833-71-0P 583833-72-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of isoquinolinone derivs. as JNK inhibitors)

RN 583833-69-6 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-6-methoxy-1-oxo-4-phenyl-2-(phenylmethyl)- (CA INDEX NAME)

RN 583833-70-9 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-1-oxo-4-phenyl-6-(phenylmethoxy)-2-(phenylmethyl)- (CA INDEX NAME)

RN 583833-71-0 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-6-methoxy-1-oxo-4-phenyl-2-(phenylmethyl)-, methyl ester (CA INDEX NAME)

RN 583833-72-1 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-1-oxo-4-phenyl-6-(phenylmethoxy)-2-(phenylmethyl)-, methyl ester (CA INDEX NAME)

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2002:615576 CAPLUS Full-text

DN 137:169431

TI Preparation of isoquinolinones as dipeptidyl peptidase IV inhibitors for the prophylaxis or treatment of diabetes

```
(10/572,343_RCE)
      Oi, Satoru; Ikedou, Koji; Takeuchi, Koji; Ogino, Masaki; Banno, Yoshihiro;
ΙN
      Tawada, Hiroyuki; Yamane, Taihei
PA
      Takeda Chemical Industries, Ltd., Japan
      PCT Int. Appl., 600 pp.
SO
      CODEN: PIXXD2
DT
      Patent
LA
      English
FAN.CNT 1
                       KIND DATE APPLICATION NO. DATE
      PATENT NO.
      WO 2002062764
                              A1 20020815 WO 2002-JP831 20020201 <--
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      WO 2002062764 A9 20021010
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                GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
                LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
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      JP 2003238566
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                              B2 20090121
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      EP 1355886
                              A1
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      EP 1355886
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                           A2 20040428
      HU 2004000058
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                                                                                  20020201
CN 1500080 A 20040526 CN 2002-807429 20020201

BR 2002006831 A 20040706 BR 2002-6831 20020201

AT 366724 T 20070815 AT 2002-711278 20020201

NO 2003003385 A 20030930 NO 2003-3385 20030729

US 20040082607 A1 20040429 US 2003-470805 20030801

US 7034039 B2 20060425

MX 2003006918 A 20040524 MX 2003-6918 20030801

IN 2003KN01086 A 20050708 IN 2003-KN1086 20030827

PRAI JP 2001-27349 A 20010202

JP 2001-292388 A 20010925

JP 2001-382232 A 20011214

WO 2002-JP831 W 20020201

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
                                                                                  20020201
      CN 1500080
                                     20040526
                                                   CN 2002-807429
                              А
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

MARPAT 137:169431

GΙ

III

AB Title compds. I [R1, R2 = (un)substituted alkyl or heterocyclic ring; A = (un)substituted 5 to 10-membered aromatic ring; X = bond, O, S, etc.; L = divalent hydrocarbon or a salt], their pharmaceutically acceptable salts and formulations were prepared For example, acylation of amino isoquinolinone II, followed by BOC deprotection provided claimed isoquinolinone III.HC1. Isoquinolinone III inhibited human dipeptidyl peptidase V with an IC50 = 0.25 μM . Also, the plasma glucose-lowering (76%) and insulinotropic effects (255%) of III in rat were reported. Compds. I have superior peptidase inhibitory activity and are useful for the prophylaxis or treatment of diabetes.

IT 447424-13-7P, tert-Butyl

6-benzyloxy-2-isobutyl-1-oxo-4-phenyl-1,2-dihydro-3-

isoquinolinecarboxylate 447424-14-8P,

6-Benzyloxy-2-isobutyl-1-oxo-4-phenyl-1,2-dihydro-3-isoquinolinecarboxylic acid <math>447425-62-99, Ethyl

7-(benzyloxy)-2-isobutyl-1-oxo-4-phenyl-1,2-dihydro-3-

isoquinolinecarboxylate 447425-63-0P,

7-(Benzyloxy)-2-isobutyl-1-oxo-4-phenyl-1, 2-dihydro-3-

isoquinolinecarboxylic acid

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of isoquinolinones as dipeptidyl peptidase IV inhibitors for the treatment of diabetes)

RN 447424-13-7 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(2-methylpropyl)-1-oxo-4-phenyl-6-(phenylmethoxy)-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 447424-14-8 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(2-methylpropyl)-1-oxo-4-phenyl-6-(phenylmethoxy)- (CA INDEX NAME)

447425-62-9 CAPLUS RN

3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(2-methylpropyl)-1-oxo-4-CN phenyl-7-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)

RN 447425-63-0 CAPLUS

3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(2-methylpropyl)-1-oxo-4-CN phenyl-7-(phenylmethoxy)- (CA INDEX NAME)

OSC.G THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS) 17

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

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2 L4 NOT L5 1.6

=> dis 16 1-2 bib abs hitstr

ANSWER 1 OF 2 CAPLUS COPYRIGHT 2010 ACS on STN 1.6

2008:495445 CAPLUS Full-text ΑN

DN

Discovery, synthesis and biological evaluation of isoquinolones as novel ΤТ and highly selective JNK inhibitors (1)

- Asano, Yasutomi; Kitamura, Shuji; Ohra, Taiichi; Aso, Kazuyoshi; Igata, Hideki; Tamura, Tomoko; Kawamoto, Tomohiro; Tanaka, Toshimasa; Sogabe, Satoshi; Matsumoto, Shin-ichi; Yamaguchi, Masashi; Kimura, Hiroyuki; Itoh, Fumio
- Medicinal Chemistry Research Laboratories, Pharmaceutical Research CS Division, Takeda Pharmaceutical Company, Ltd, 17-85, Jusohonmachi 2-chome, Yodogawa-ku, Osaka, 532-8686, Japan
- Bioorganic & Medicinal Chemistry (2008), 16(8), 4715-4732 SO CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Ltd.

DT Journal

LA English

OS CASREACT 149:44277

GΙ

Ι

AB A novel series of 4-phenylisoquinolones were synthesized and evaluated as c-Jun N-terminal kinase (JNK) inhibitors. Initial modification at the 2- and 3positions of the isoquinolone ring of hit compound 4, identified from highthroughput screening, led to the lead compound 6b (I). The optimization was carried out using a JNK1-binding model of 6b and several compds. exhibited potent JNK inhibition. Among them, a

(methylsulfonylbenzyl)bromooxoisoquinolinecarboxylate significantly inhibited cardiac hypertrophy in rat pressure-overload models without affecting blood pressure and the concept of JNK inhibitors as novel therapeutic agents for heart failure was confirmed.

IT 583833-71-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aryl-substituted oxoisoquinolinecarboxylates as JNK inhibitors and the kinase inhibition selectivity, pharmacokinetics, and effect on cardiac hypertrophy and blood pressure of one of the isoquinolinones)

RN 583833-71-0 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-6-methoxy-1-oxo-4-phenyl-2-(phenylmethyl)-, methyl ester (CA INDEX NAME)

IT 583833-69-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aryl-substituted oxoisoquinolinecarboxylates as JNK inhibitors and the kinase inhibition selectivity, pharmacokinetics, and effect on cardiac hypertrophy and blood pressure of one of the isoquinolinones)

RN 583833-69-6 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-6-methoxy-1-oxo-4-phenyl-2-(phenylmethyl) - (CA INDEX NAME)

$$\stackrel{\text{MeO}}{\underbrace{\qquad\qquad}} \stackrel{\text{Ph}}{\underbrace{\qquad\qquad}} \text{CO}_2\text{H}$$

OSC.G THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS) RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2010 ACS on STN

2005:300410 CAPLUS Full-text ΑN

DN 142:373700

ΤI Preparation of isoquinoline derivatives as potassium channel inhibitors

ΙN Isaacs, Richard; Dinsmore, Christopher J.; McIntyre, Charles J.; Payne, Linda S.; Claremon, David A.

Merck & Co., Inc., USA PA

PCT Int. Appl., 48 pp. SO

CODEN: PIXXD2

DT Patent

English LA

FAN.CNT 1

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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

CASREACT 142:373700; MARPAT 142:373700 OS

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AB Title compds. represented by the formula I [wherein ring A = (un)substituted (hetero)aryl; R1 = H, (cyclo)alkyl, (alkyl)amino, etc.; R2, R8-R10 = independently H, halo, aminocarbamoyl, etc.; R5 = carbonylamino, carboxy, carbonylheterocyclic, etc.; and pharmaceutically acceptable salts, crystal forms or hydrates thereof] were prepared as potassium channel inhibitors. For example, II was given in a multi-step synthesis starting from (2-hydroxy-4-methoxyphenyl)(phenyl)methanone. I provide \geq 20 % inhibition at a concentration of 33 μM or less in the high throughput Kv1.5 planar patch clamp assay and \geq 25 % inhibition at a concentration of 25 μM or less in the AAS (Atomic Absorption Spectroscopy) assay. Thus, I and their pharmaceutical compns. are useful as potassium channel inhibitors for the treatment of cardiac arrhythmias, and the like.

IT 849358-94-7P

RN

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of isoquinoline derivs. as potassium channel inhibitors) $849358 - 94 - 7 \quad \text{CAPLUS}$

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-7-methoxy-2-methyl-1-oxo-4-phenyl-, methyl ester (CA INDEX NAME)

IT 849358-96-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of isoquinoline derivs. as potassium channel inhibitors) ${\tt RN} - 849358 - 96 - 9 - {\tt CAPLUS}$

CN 3-Isoquinolinecarboxylic acid, 1,2-dihydro-7-methoxy-2-methyl-1-oxo-4-phenyl- (CA INDEX NAME)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

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STN INTERNATIONAL LOGOFF AT 10:54:02 ON 16 APR 2010